

REMARKS

Claims 1-12 are pending in this application. By this Amendment, claims 1, 4, 5 and 10 are amended to recite additional features disclosed in the specification at, for example, paragraphs [0010], [0063], [0084] and [0088]. Claims 4 and 5 are amended into independent form. Claims 9 and 11 are amended for better clarity.

Reconsideration of the application is respectfully requested.

The Office Action objects to claim 1. Claim 1 is amended. Accordingly, withdrawal of the objection to claim 1 is respectfully requested.

The Office Action rejects claim 5 under 35 U.S.C. §112, second paragraph. Claim 5 is amended. Accordingly, withdrawal of the rejection of claim 5 under 35 U.S.C. §112, second paragraph, is respectfully requested.

The Office Action rejects claims 1-3, 5, 6 and 9-12 under 35 U.S.C. §102(b) over U.S. Patent Publication No. 2002/0145142 to Chen et al. ("Chen"); and rejects claims 4, 7 and 8 under 35 U.S.C. §103(a) over Chen in view of U.S. Patent No. 5,100,820 to Tsubone. These rejections are respectfully traversed.

Claims 1, 4, 5 and 10 are amended to recite additional features, as outlined above. Chen and Tsubone, either individually or in combination, do not disclose or suggest these features.

In particular, regarding claims 1 and 10, Chen discloses a device in which a gate layer 36 may be formed to have a trapezoid profile or a rectangular profile. See paragraph [0010]. However, Chen does not disclose or suggest a gate electrode that is tapered at a 20° to 80° angle, as recited in claims 1 and 10. Thus, Chen does not disclose or suggest the subject matter recited in claims 1 and 10.

Tsubone discloses a method of impurity implantation. See col. 2, lines 28-46. Tsubone does not disclose or suggest a gate electrode that is tapered at a 20° to 80° angle. Therefore, Tsubone does not supply the subject matter lacking in Chen. Hence, Chen and Tsubone, either

individually or in combination, do not disclose or suggest the subject matter recited in claims 1 and 10, and claims 2, 3, 6-9, 11 and 12 depending therefrom.

Claim 4 is amended into independent form and to recite that "the second insulating layer and the gate-insulating film having substantially the same composition." Chen and Tsubone do not disclose or suggest such a feature.

The Office Action acknowledges that Chen does not disclose or suggest this feature, but asserts that Tsubone discloses this feature at col. 7, lines 61-68, and col. 8, lines 64-66. However, these cited portions do not disclose or suggest the feature "the second insulating layer and the gate-insulating film having substantially the same composition," as recited in claim 4.

In particular, the cited portions merely disclose a layer 60 that is grown over the entire surface of the device. However, the layer 60 is not part of the configuration that includes a gate-insulating film, a first insulating layer and a second insulating layer. As shown in Figs. 8F and 8G of Tsubone, the asserted "layers" 53 and 60 are separated by the gate electrode 56. Thus, 53 and 60 are not a first and a second insulating layers of a layered insulating film formed on the gate electrode. Thus, the layer 60 is not one of two layers of a layered insulating film. Therefore, Tsubone does not supply the subject matter lacking in Chen. Accordingly, Chen and Tsubone, either individually or in combination, do not disclose or suggest the subject matter recited in claim 4.

Claim 5 is amended to recite "detecting an end point of at one of the layers of the layered insulating film to control the etching of the layered insulating film." Chen and Tsubone do not disclose or suggest such a feature.

The Office Action asserts that the end point of etching is inherent to the process of etching. However, a process of etching does not necessarily disclose detection of the end point. Chen does not appear to disclose or suggest the detection of end point. Thus, Chen does not disclose or suggest the subject matter recited in claim 5.

Tsubone does not disclose or suggest detection of an end point. Therefore, Tsubone does not supply the subject matter lacking in Chen. Hence, Chen and Tsubone, either individually or in combination, do not disclose or suggest the subject matter recited in claim 5.

For at least the above reasons, withdrawal of the rejection of claims 1-12 under 35 U.S.C. §102(b) and 103(a) is respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-12 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff
Registration No. 27,075

Gang Luo
Registration No. 50,559

JAO:GXL/axl

Attachment:
Amendment Transmittal

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OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

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